Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Original) A method for modulating a person's autonomic function, the method comprising:

interfacing a valve system to the person's airway, the valve system being configured to decrease or prevent respiratory gas flow to the person's lungs during at least a portion of an inhalation event;

permitting the person to inhale and exhale through the valve system, wherein during inhalation the valve system functions to produce a vacuum within the thorax to transiently decrease intrathoracic pressure and thereby modulate the person's autonomic function.

2. (Original) A method as in claim 1, wherein the valve system includes a pressure responsive inflow valve, and further comprising setting an actuating pressure of the valve to be in the range from about -2 cm H2O to about -30 cm H2O.

3. (Original) A method as in claim 2, further comprising setting the actuating pressure of the valve to be in the range from about -3 cm H2O to about -12 cm H2O for flow rates between about 30 to about 50 liters per minute.

4. (Original) A method as in claim 1, wherein during inhalation the valve system functions to decrease the person's heart rate and peripheral vascular tone.

5. (Original) A method as in claim 1, wherein during inhalation the valve system functions to increase blood flow back to the right heart of the person, thereby enhancing vital organ perfusion and function.

6. (Original) A method as in claim 1, wherein during inhalation the valve system functions to increase heart rate variability.

7. (Canceled).

8. (Original) A method as in claim 1, wherein during inhalation the valve system functions to reduce the person's anxiety level.

9. (Original) A method as in claim 1, wherein during inhalation the valve system functions to treat shock secondary to hypovolemia, sepsis and heart failure.

10. (Canceled)

11. (Original) A method as in claim 1, wherein during inhalation the valve system functions to treat states of hypo-perfusion that are selected from a group consisting of wound healing, stroke and diseases where blood flow is compromised, wherein at least one of the diseases comprises coronary artery disease.

12. (Original) A method as in claim 1, wherein during inhalation the valve system functions to improve blood flow to the muscles and brain, thereby reducing heart rate and enhancing recovery from physical exertion.

13. (Original) A method as in claim 1, wherein the valve system is incorporated into a facial mask or a mouthpiece, and further comprising coupling the facial mask or the mouthpiece to the person's face.

14. (Original) A method as in claim 2, further comprising coupling at least one physiological sensor to the patient to monitor at least one physiological parameter of the person while breathing through the valve system, and varying the actuating pressure based on the monitored physiological parameter.

Claims 15-20 (Canceled).

21. (Original) A method for assisting a person in recovering from physical exertion, the method comprising:

interfacing a valve system to the person's airway, the valve system being configured to decrease or prevent respiratory gas flow to the person's lungs during at least a portion of an inhalation event;

permitting the person to inhale and exhale through the valve system, wherein during inhalation the valve system functions to produce a vacuum within the thorax to improve blood flow to the muscles and brain, and to reduce the person's heart rate.

22. (Original) A method as in claim 21, wherein the valve system includes a pressure responsive inflow valve, and further comprising setting an actuating pressure of the valve to be in the range from about -2 cm H2O to about -30 cm H2O.

23. (Previously presented) A method for treating a person, the method comprising:

interfacing a valve system to the person's airway, the valve system being configured to decrease or prevent respiratory gas flow to the person's lungs during at least a portion of an inhalation event;

permitting the person to inhale and exhale through the valve system, wherein during inhalation the valve system functions to produce a vacuum within the thorax to treat hypotension, shock secondary to hypovolemia, sepsis and heart failure.

24. (New) A method for modulating a person's autonomic function, the method comprising:

interfacing a valve system to the person's airway, the valve system being configured to decrease or prevent respiratory gas flow to the person's lungs during at least a portion of an inhalation event;

permitting the person to inhale and exhale through the valve system, wherein during inhalation the valve system functions to produce a vacuum within the thorax to transiently decrease intrathoracic pressure and thereby modulate the person's autonomic function;

wherein during inhalation the valve system functions to decrease sympathetic tone.

25. (New) A method for modulating a person's autonomic function, the method comprising:

interfacing a valve system to the person's airway, the valve system being configured to decrease or prevent respiratory gas flow to the person's lungs during at least a portion of an inhalation event;

permitting the person to inhale and exhale through the valve system, wherein during inhalation the valve system functions to produce a vacuum within the thorax to transiently decrease intrathoracic pressure and thereby modulate the person's autonomic function;

wherein during inhalation the valve system functions to treat sleep disorders, wherein at least one of the sleep disorders comprises apnea.